

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/15711

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 15/163, 17/27, 17/30, 17/60, 153/00; G10L 21/00; H04H 1/00  
 US CL : 704/9, 275; 707/3, 705/14, 27; 455/2.01; 709/245

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 704/9, 275; 707/3, 705/14, 27; 455/2.01; 709/245

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|------------|---|-----------------------|
| Y          | US 5,321,833 A (CHANG et al) 14 June 1994 (14.06.1994), abstract, figs. 3-4; col. 2, line 30 to col. 3, line 3; and col. 3, line 51 to col. 10, line 30.            | 1-25 & 30             |
| A          | US 5,535,382 A (OGAWA) 09 July 1996 (09.07.1996), abstract and col. 1, line 30 to col. 9, line 7.   | 1-25 & 30             |
| Y          | US 5,873,076 A (BARR et al) 16 February 1999 (16.02.1999), abstract; figs. 1-2 & 4-7B; col. 3, line 60 to col. 7, line 10; and col. 8, line 50 to col. 37, line 63. | 1-25 & 30             |
| A          | US 5,794,050 A (DAHLGREN et al) 11 August 1998 (11.08.1998) abstract; figs. 2-5; col. 5, line 6 to col. 6, line 12; and col. 7, line 40 to col. 16, line 4.         | 1-25 & 30             |
| Y          | US 5,873,080 A (CODEN et al) 16 February 1999 (16.02.1999), abstract; col. 3, line 33 to col. 4, line 3; and col. 4, line 32 to col. 12, line 46.                   | 26-29                 |
| Y          | US 5,884,302 A (HO) 16 March 1999 (16.03.1999), abstract; figs. 3-10; and col. 3, line 30 to col. 24, line 14.  | 26-29                 |
| A          | US 5,995,921 A (RICHARDS et al) 30 November 1999 (30.11.1999), abstract; col. 2, lines 10-57; and col. 3, line 12 to col. 14, line 65.                              | 26-29                 |
| Y          | US 5,893,091 A (HUNT et al) 06 April 1999 (06.04.1999), abstract; col. 4, line 38 to col. 7, line 27; and col. 7, line 53 to col. 9, line 10.                       | 31-46                 |
| A          | US 5,948,054 A (NIELSEN) 07 September 1999 (07.09.1999) abstract; and col. 3, line 53 to col. 11, line 21.  | 31-46                 |

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

|   |   |
|---|---|
| * Special categories of cited documents:  | *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention   |
| *A* document defining the general state of the art which is not considered to be of particular relevance  | *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  |
| *E* earlier application or patent published on or after the international filing date   | *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combinations being obvious to a person skilled in the art |
| *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | *Z* document member of the same patent family   |
| *O* document referring to an oral disclosure, use, exhibition or other means  |   |
| *P* document published prior to the international filing date but later than the priority date claimed  |   |
| Date of the actual completion of the international search   | Date of mailing of the international search report  |
| 21 September 2001 (21.09.2001)  | 06 NOV 2001   |
| Name and mailing address of the ISA/US<br>Commissioner of Patents and Trademarks<br>Box PCT<br>Washington, D.C. 20231<br>Facsimile No. (703) 305-3230                   | Authorized officer:<br>Joseph Thomas<br>Telephone No. (703) 305-4700  |

Form PCT/ISA/210 (second sheet) (July 1998)

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## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|------------|--|-----------------------|
| Y          | US 5,966,695 A (MELCHIONE et al) 12 October 1999 (12.10.1999), abstract; figs. 4A-4B & 5-5G; col. 5, line 23 to col. 8, line 59; col. 19, line 24 to col. 23, line 48; and col. 28, line 53 to col. 35, line 60.               | 31-46                 |
| A          | US 5,987,454 A (HOBBS) 16 November 1999 (16.11.1999) abstract; col. 7, line 33 to col. 9, line 35; and col. 13, line 66 to col. 25, line 25.   | 31-46                 |
| Y          | US 5,742,816 A (BARR et al) 21 April 1998 (21.04.1998), abstract; figs. 12-13; and col. 35, line 28 to col. 37, line 64.   | 47-54                 |
| A          | US 5,974,412 A (HAZLEHURST et al) 26 October 1999 (26.10.1999), abstract; col. 1, line 64 to col. 3, line 38; col. 7, line 7 to col. 10, line 35; and col. 20, line 64 to col. 26, line 67.                                    | 47-54                 |
| Y          | US 6,021,403 A (HORVITZ et al) 01 February 2000 (01.02.2000), abstract; col. 5, line 41 to col. 7, line 4; col. 10, line 4 to col. 11, line 57; col. 17, line 14 to col. 21, line 7; and col. 22, line 55 to col. 24, line 36. | 47-54                 |
| Y          | US 5,694,546 A (REISMAN) 02 December 1997 (02.12.1997), abstract; col. 10, line 144 to col. 11, line 16; and col. 25, line 42 to col. 29, line 20.   | 55-58                 |
| Y          | US 5,812,865 A (THEIMER et al) 22 September 1998 (22.09.1998), abstract; col. 5, line 36 to col. 6, line 56; col. 15, lines 60-65; and col. 16, line 20 to col. 24, line 11.   | 55-58                 |
| A          | US 6,016,476 A (MAES et al) 18 January 2000 (18.01.2000), abstract; and col. 4, line 45 to col. 15, line 43.   | 55-58                 |
| A          | US 5,848,399 A (BURKE) 08 December 1998 (08.12.1998), abstract; figs. 9-18; and col. 3, line 34 to col. 12, line 31.   | 59-69                 |
| Y          | US 5,897,622 A (BLINN et al) 27 April 1999 (27.04.1999), abstract; col. 3, line 1 to col. 4, line 26; and col. 10, line 5 to col. 23, line 67.   | 59-69                 |
| Y          | US 6,006,225 A (BOWMAN et al.) 21 December 1999 (21.12.1999) abstract; col. 2, line 26 to col. 3, line 29; and col. 4, line 1 to col. 14, line 55.   | 59-69                 |
| A          | US 6,061,057 A (KNOWLTON et al) 09 May 2000 (09.05.2000), abstract; fig. 4; and col. 14, line 13 to col. 48, line 11.  | 59-69                 |
| Y          | US 5,826,269 A (HUSSEY) 20 October 1998 (20.10.1998), abstract; col. 3, line 28 to col. 4, line 16; and col. 4, line 41 to col. 12, line 57.   | 70-85                 |
| A          | US 5,901,287 A (BULL et al) 04 May 1999 (04.05.1999), abstract; and col. 6, line 16 to col. 14, line 55.   | 70-85                 |
| A          | US 5,913,215 A (RUBINSTEIN et al) 15 June 1999 (15.06.1999), abstract; col. 2, line 27 to col. 3, line 14; and col. 5, line 31 to col. 21, line 18.  | 70-85                 |
| Y          | US 6,052,710 A (SALIBA et al) 18 April 2000 (18.04.2000), abstract; col. 2, lines 5-63; and col. 3, line 37 to col. 16, line 60.   | 70-85                 |

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**Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)**

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:  
Please See Continuation Sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

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**BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING**  
INVENTION GROUPS:

Group I, claims 1-25 & 30, drawn to a text-based linguistic analysis system.

Group II, claims 26-29, drawn to a speech-recognition and playback system.

Group III, claims 31-46, directed to a promotional information and advertising generation system.

Group IV, claims 47-54, directed to user profile and user log management system.

Group V, claims 55-58, directed to a system for interfacing with a wireless personal electronic device.

Group VI, claims 59-69, drawn to an electronic shopping and product information system.

Group VII, claims 70-85, drawn to electronic mail message processing system.

The inventions listed as Groups I-VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The inventions in each of Groups I-VII may be used separately and independently without requiring the recited elements of another group. For example, the Group I invention does not need the speech-recognition and playback features of Group II, nor the promotions/advertising elements of Group III, the user profile data processing of Group IV, the wireless personal electronic device of Group V, the electronic shopping system of Group VI, and electronic mail system of Group VII.

Groups II-VII commonly recite "natural language query" along with Group I; however, this feature is not considered a special technical feature since no specific details are recited with regard to the query processing or the processing of natural language elements, in at least the manner provided in the Group I invention. Thus, "natural language query" is merely a nominal recitation within Groups II-VII.

**Continuation of B. FIELDS SEARCHED Item 3:**  
EAST Search: files USPAT, EPO, JPO, DERWENT, & IBM TDB's

search terms: query, question, natural language/linguistic, implicit/inference, noun/pronoun/heading/title, speech, promotion/advertising, wireless, user profile, shopping cart/basket, electronic mail/messaging